

THE ANNALS

AND

MAGAZINE OF NATURAL HISTORY.

[SEVENTH SERIES.]

No. 32. AUGUST 1900.

XVI.—*Notes on Diptera from South Africa (Tabanidæ and Asilidæ).* By Miss GERTRUDE RICARDO.

THE Diptera treated of in this paper are those collected by Mr. Distant, chiefly from the Transvaal, but a few come from Angola and Nyasaland. The new species will be figured later in his work on the insect fauna of the Transvaal. The other families represented in his collection will be described on a future occasion.

Tabanidæ.

PANGONINÆ.

Cadicera nigrescens, ♀, sp. n.

One female from Zomba, British Central Africa (*Rendall*).

This species, rather resembling *C. rubra-marginata*, Macq., differs from it in the following particulars:—The antennæ are imperfect in this specimen. The red colouring on the abdomen is not so widespread, there is *no* central dorsal red stripe on the first three segments, the red at the sides is less marked and does not begin till the third segment, on the ventral side it extends as a band on the last segment. There is a greyish band on the forehead behind the antennæ, extending to the sides, plainly visible when viewed from behind. The palpi

are not quite so thick. The wings are rather darker and the insect is smaller.

Length 15 millim.

Type (female), Zomba, British Central Africa (*Rendall*).

PANGONIA, Rond.

Pangonia biclausa, ♀, Loew, Dipt. Südafrik. p. 19 (1860).

One male from Pretoria (*W. L. D.*).

This agrees with the description of the female given by Loew; it is one of the species with the fourth posterior cell closed (see Ricardo, Ann. & Mag. Nat. Hist. (7) v. p. 109, and remarks on *P. brevis*, Loew, which will also apply to this species).

Pangonia chrysopila, Macq., Hist. Nat. Dipt. i. p. 194 (1834);
Walker, List Dipt. pt. v. Suppl. 1, p. 137 (1854).

One female from Pretoria (*Rendall*).

Probably belongs to this species. Macquart's description is very meagre; if correct, it belongs to *Pangonia*, Rondani, the eyes being bare.

Pangonia angulata, Fabr., Syst. Antl. p. 91. 5 (1805);
Wiedem., Auss. zweifl. Ins. i. p. 97 (1828); Macq., Ann.
Soc. Ent. Fr. vi. p. 429, tab. xv. fig. 4 (1837); Loew,
Dipt. Südafrik. p. 20 (1860).

Pangonia obesa, Walker, List Dipt. pt. v. Suppl. 1, p. 135 (1854);
Schiner, Reise der Novara, p. 99 (1866).

One female from Stellenbosch, 1888.

Corizoneura varicolor, Wiedem., Auss. zweifl. Ins. i. p. 98
(1828); Walker, List Dipt. pt. i. p. 134 (1848), pt. v.
Suppl. 1, p. 137 (1854); Loew, Dipt. Südafrik. p. 17
(1860).

One female from Pretoria (*W. L. D.*); two males and two females from Namaqualand (*Cochrane*); two males from Barberton (*Rendall*); one female from Kowie, Jan. 1895 (*F. Pym*); one male from Pretoria (*W. L. D.*), Oct. 1895.

The female from Kowie has the first posterior cell closed and pedunculated, similar to a female in the British Museum collection; there is no doubt these belong to the above species, which evidently must be added to those other species of *Pangonia* which vary in this particular in different individuals.

The males have the prolongations on the fore tarsi (see

Ann. & Mag. Nat. Hist. (7) v. p. 110); one male is very dark in colouring, and all the males have the thorax darker than in the females.

Corizoneura suavis, ♀, Loew, Dipt. Südafrik. p. 17 (1860).

One female from Pretoria (*W. L. D.*).

Corizoneura lateralis, Fabr., Syst. Antl. p. 91. 4 (1805); Wiedem., Auss. zweifl. Ins. i. p. 101 (1828); Walker, List Dipt. pt. i. p. 134 (1848), pt. v. Suppl. 1, p. 135 (1854); Loew, Dipt. Südafrik. p. 17 (1860).

One male from Cape Town.

The stripes on the thorax are not distinct, nor is the white spot on the wing, but the eyes not quite meeting agree with Loew's description.

Rhinomyza denticornis, Wiedem., Auss. zweifl. Ins. i. p. 111 (1828); Walker, List Dipt. i. p. 192 (1848); Loew, Dipt. Südafrik. p. 21 (1860).

Silvius denticornis, Wiedem., *l. c.*

Dichelacera binotata, Macq., Dipt. Exot. i. p. 113.

One female from Barberton (*Rendall*); two females from Pretoria, one male from Rustenburg (*W. L. D.*).

Chrysops stigmatalis, Loew, Dipt. Südafrik. p. 29, tab. i. fig. 18 (1860).

Three females, all from Pretoria.

TABANINÆ.

Tabanus biguttatus, Wiedem., Auss. zweifl. Ins. ii. p. 623 (1828); Walker, List Dipt. pt. v. Suppl. 1, p. 231 (1854); Loew, Dipt. Südafrik. p. 37 (1860); Karsch, Berlin. ent. Zeit. xxxi. p. 370 (1887).

Tabanus cilipes, Macq., Dipt. Exot. i. p. 120 (1838); Walker, *l. c.* p. 236.

Tabanus cerberus, Walker, *l. c.* pt. i. p. 48 (1848).

Tabanus tripunctifer, Walker, Zool. viii. Appendix 95 (1850).

Tabanus noctis, Walker, Dipt. Saund. pt. i. p. 42 (1850).

One female from Graham's Town, June 1893 (*Rev. Wallace*); one female from Fort Johnston, Nyasaland (*Rendall*); one female from Namaqualand (*Cochrane*).

Tabanus sagittarius, Macq., *l. c.* p. 123; Walker, List Dipt. pt. v. Suppl. 1, p. 228 (1850).

Tabanus socius, Walker, *l. c.* pt. i. p. 160.

Tabanus serratus, Loew, *l. c.* p. 39, tab. i. fig. 21.

Nine females from Pretoria (*W. L. D.*); eight females from Fort Johnston, Nyasaland (*Rendall*); one female from Uganda (*Ansorge*).

Tabanus latipes, Macq., *l. c.* i. p. 119; Loew, *l. c.* p. 36; Peters, Reise nach Mossambique, Zool. v. 2 (1862).

Tabanus latipes, Walker, List Dipt. pt. i. p. 236, pt. v. Suppl. 1, p. 328 (1854).

Tabanus fenestratus, Walker, Zoologist, viii. Appendix 67 (1850); List Dipt. v. Suppl. 1, p. 219 (1854).

Tabanus africanus, Gray.

One female from Zomba, British Central Africa; three females from Angola (*Monteiro*).

Tabanus nyasæ, ♀, sp. n.

One female (type) from Fort Johnston, Nyasaland (*Rendall*).

Belongs to division B A b ♂ of Loew. Eyes naked. No appendix. Fore tibiæ not thickened. Wings clear.

Brown. Face and palpi greyish, the latter with short black pubescence on the upperside. Forehead yellowish grey, with a shining reddish oblong spot above antennæ, a stripe of the same colour about half as long again proceeding from it towards the vertex. Antennæ with the first joint on its upper half thickly covered with black hairs, the second reddish, the third on first annulation greyish. Thorax with grey tomentum and five grey stripes. Abdomen with triangular greyish spots on segments 2-5 forming an irregular stripe; on the side of each segment a greyish oblong spot, not reaching the anterior margin; the posterior margins of segments are narrowly grey; the extreme lateral margins of fifth and sixth segments are fulvous; the dorsum of abdomen covered with short black pubescence. The ventral part of abdomen is reddish, with an indistinct black stripe in the centre. Legs with long grey and some black hairs on anterior femora and tibiæ; the posterior tibiæ have shorter pubescence, chiefly black. Wings hyaline, the fore border and base brownish yellow, veins brown. Halteres brown, with yellowish club.

Length $15\frac{1}{2}$ millim.; width of head 5 millim.

Tabanus nigrohirtus, ♀, sp. n.

One female in British Museum Coll., labelled "Bonny, July 1872, 73. 66"; two females in Mr. Distant's Coll., labelled "Bonny, July 1872."

Belongs to division B A b 2 of Loew. Eyes naked. No appendix. Fore tibiæ not thickened. Wings shaded.

Reddish brown. Face red, with white pubescence; palpi yellow, with black pubescence. Beard white. Forehead greyish, with a long red-brown stripe in the centre. Antennæ red, the apex of the joints black; pubescence on the first two joints black, on the third greyish. Thorax with three indistinct black stripes, the middle one divided by a narrow median line; covered with hoary tomentum and short black pubescence, with longer black hairs on the sides; breast red, with grey pubescence and tomentum. Scutellum red, with some hoary tomentum. Abdomen dark red, with a narrow dorsal greyish line extending from the first to the fifth segment; the whole surface of the abdomen is covered with short black pubescence, which is usually thickest on the fourth and following segments; on the extreme lateral margins there are some white hairs; in one specimen the median line is indistinct; the underside of abdomen is lighter red, with less black pubescence and some white hairs; the posterior margins of the segments are lighter in colour and only the extreme apex dark.

Legs reddish yellow, the coxæ with grey pubescence; the anterior femora, the apical half of the tibiæ, and all the tarsi are blackish, and sometimes the posterior femora; the hairs on the outer edge of the femora are white, and there is some white pubescence on the tibiæ, elsewhere it is black.

Wings grey, on fore border yellowish, veins brown; no appendix on fork of third longitudinal vein.

Length 16 millim.; width of head 3 millim.

Type (female), Bonny, July 1872, 73. 66, in British Museum Coll.

Atylotus nigromaculatus, ♀, sp. n.

Thirteen females; five from Pretoria, the rest from Fort Johnston, Nyasaland.

Resembles *Tabanus bipunctatus*, Wulp ('Notes Leyden Museum,' vii. p. 72, 1885), from West and South Africa, in having two black spots on the forehead; but the eyes have a band which Wulp expressly mentions as non-existent in his species, and the abdomen does not agree with his description.

I therefore venture to make it a new species.

Dark grey. Face and palpi whitish, with white hairs; some black pubescence on the npperside of the latter, more marked in some of the series than in the type. Beard scanty and whitish. On the forehead are two distinct black shining spots, the upper one near the antennæ heart-shaped, with a longitudinal groove, the other oval. The pubescence on the eyes is very slight, hardly perceptible; there is a cross-band extending to opposite the cordiform spot. The antennæ are light yellow, the first joint greyish, with some black hairs; the apex of the third joint is more orange in colour. Thorax with greyish or light yellow short pubescence. Abdomen with a distinct central grey stripe extending from the first to the sixth segment; this is not so distinct in those from Nyasaland; on each side is another stripe more yellow in colour, not extending beyond the fifth segment. The ventral side has no stripes, clothed with short light yellowish pubescence. Legs reddish yellow, the coxæ with light grey pubescence, the anterior tibiæ at their apex and the tarsi dark fuscous; on the posterior legs only the last four joints of the tarsi are darker.

Wings hyaline, the fore nerves yellow; a short appendix on the fork of the third vein, not always present.

Length $12\frac{1}{2}$ millim.; width of head 4 millim.

Type (female), Pretoria (*W. L. D.*).

Asilidæ.

Laparus albicinctus, ♀, sp. n.

One female from Barberton (*P. Rendall*).

This species will belong to Loew's division *A b* (see Dipt. Südafrik.). Fore tibiæ having an end spur and four to six bristles on the anterior margin of the mouth.

Black. Face brown, shining, with testaceous tomentum at the sides, bordering the eyes, and round the mouth. The four large bristles near the mouth are black, with a few black hairs below. Antennæ red, the first joint and the base of the second blackish, a large bristle on the latter. Forehead black, with some greyish-red tomentum; a short central longitudinal furrow extends from the antennæ to the ocelligerous tubercle. The bristles and hairs on the hind part of head are black. Proboscis and palpi black, the latter with black hairs.

The thorax is black, with a whitish band on each side extending the whole length, and three faint white stripes on the dorsum, only noticeable on the anterior border. Scutellum

bordered with grey. The breast-sides shining black, with very faint reddish-grey tomentum. Abdomen blue-black, shining. Halteres brown. Legs dark red, the coxæ and last joints of tarsi, the fore femora, and the base of the posterior femora black; there are no bristles on the fore femora; all the bristles and pubescence on the legs black.

Wings light brown, lighter at the apex, the opening of the fourth posterior cell is a little narrowed.

Length 14 millim.

Type (female), Barberton (*P. Rendall*).

Microstylum dispar, Loew, Dipt. Südafrik. p. 78 (1860).

Four males from Rustenburg, two males from Pretoria.

Microstylum nigribarbatum, Bigot, Ann. Soc. Ent. Fr. (5) viii. p. 408 (1878).

One male from Pretoria probably belongs to this species, though the third joint of antennæ is reddish, not black, and the hind tibiæ have white hairs on the underside, extending nearly halfway, of which no mention is made by Bigot.

Microstylum acutirostre, Loew, Ber. d. Akad. d. Wissensch. zu Berlin, p. 658 (1852); Dipt. Südafrik. p. 79 (1860); Peters's Reise, p. 7, tab. i. figs. 5, 6 (1862).

One male from Fort Johnston, Nyasaland.

The third joint of palpi is red on its apical half, not wholly black; the last segment of abdomen has an orange-yellow border; the double black stripe on the thorax is not wider anteriorly, nor reddish; and the wings are not so dark as in Loew's description.

Microstylum rufinevrum, Macq., Dipt. Exot. Suppl. v. p. 49 (1850).

One female from Barberton (*Rendall*).

The pubescence on the first joint of tarsi is orange-red instead of white; the wings are hardly brown as in Macquart's description, but greyish. Macquart's type came from Gaboon.

Microstylum spurinus, Walker, List Dipt. pt. ii. p. 308 (1849).

Dasypogon spurinus, Walker, *l. c.*

One female from Pretoria.

This differs from the type in having stiff black bristles on the thorax, instead of long white hairs, otherwise it seems identical with Walker's type.

Microstylum glabrum, ♀, sp. n.

One female from Pretoria (*W. L. D.*); one female from Zoutpansberg (*Kæssner*).

This species closely agrees with Loew's description of *M. gulosum*, ♂, but is probably a distinct species; it differs in the following particulars from *M. gulosum*:—

The abdomen is dull black on the first four segments, shining black on the last four; there is no pubescence on the dorsum of abdomen, and only some on the first segment of the underside. Legs black; the pubescence on the femora and the posterior tibiæ white, on the anterior tibiæ black. The first posterior cell of the wings is not narrowed at the apex; the 4 spines at the apex of the tibiæ are very stout.

Length 26 millim.

Type (female), Pretoria (*W. L. D.*).

Microstylum elegans, ♂ & ♀, sp. n.

Three males and two females from Pienaars River (*W. L. D.*); two females from Pretoria (*W. L. D.*).

Belongs to division *B a* of Loew.—Moustache confined to the lower part of the face, thick, with no stout bristles intermixed.

Black. Face with yellowish-white tomentum; the moustache composed of long white hairs; palpi black, covered with long white hairs; beard white; antennæ black, with black hairs on the first two joints. Forehead with two whitish spots reaching from the eyes towards the centre, the remaining portion black; at the sides are long white hairs reaching to the antennæ; on the posterior half they are black; on the hind part of head and on the collar white. Thorax brown, with a broad grey stripe on each side, clothed with long white hairs and bristles, which extend to the posterior part of the thorax; scutellum grey, with long white pubescence; breast-sides brown, with white tomentum and a few white hairs.

Abdomen black, with very distinct grey-white bands on the posterior border of each segment, narrowest on the last one, extending up the side of each segment; they are bordered by a slight fulvous edge, more noticeable when viewed from behind; the whitish pubescence on the abdomen is short and spare, except at the sides of the first two segments, where

it is long; the underside of abdomen is grey, with some scattered white hairs. Legs black; the coxæ grey, with long white hairs; the femora and tibiæ with short white pubescence; all the bristles on legs are white, with the exception of some on the last four tarsal joints. Halteres brown. Wings clear, grey shading on the fore border as far as the second longitudinal vein, extending into the submarginal cells, where it gradually ends in a point; it also fills the centre of the first and fourth posterior cells, and there is a small irregular patch of it in the basal half of the second posterior cell; veins yellow; the first posterior cell is nearly closed in some specimens, in others hardly narrowed.

Length 27 millim.

Type (female), Pienaars River (*W. L. D.*).

The female is very similar, but the last three segments of the abdomen are wholly black, though on the side of the sixth the grey stripe is present; the abdomen is more shining and less pubescent. The pubescence on the legs is a little slighter. The first posterior cell of the wings varies as above.

Length 30 millim.

Type (female), Pienaars River (*W. L. D.*).

These fine flies were found flying near the ground, on bare open veldt. One female was caught attacking a grasshopper.

Microstylum nigrescens, ♂ & ♀, sp. n.

Two males and two females from Angola, in British Museum Coll., 76. 55 and 73. 66; one male and two females from Angola (*Monteiro*), in Mr. Distant's Coll.

Belongs to division *B b* of Loew.—Moustache confined to the lower part of the face, thin, with very stout bristles intermixed.

♂. Black. Face brown, with yellowish or whitish tomentum; the moustache consists of four large black bristles, intermixed with a very few black hairs; palpi black, the tips reddish, clothed with black hairs. Beard black. Antennæ black, the first and second joints more or less red with black hairs and bristles. Forehead with an oblong shining black spot on the vertex, continued as a narrow black line to the antennæ, sides greyish with black hairs and bristles. The hind part of head grey, with black hairs. The collar covered with greyish tomentum, reddish on the posterior half in the centre. Thorax black; the shoulders, sides, and posterior half reddish, with greyish tomentum, forming one central broad stripe divided in the middle, and one on each

side, not attaining the fore border; all the bristles and the short hairs on the dorsum are black. Scutellum red, with grey tomentum.

Abdomen dull black, some dull reddish colour on the second, third, and fourth segments, becoming more or less distinct bands on the posterior margins; some very short black pubescence on the sides; genital organ red, with black pubescence. Halteres red. Legs bright red, with black pubescence and bristles; the coxæ are brown, with greyish tomentum. Wings light brown, veins yellowish red.

Length 20 millim.

Type (male), Angola, 73. 66 in British Museum Coll.

♀. The greyish stripes on the thorax are not so distinct. The last three segments of abdomen are shining black, the extreme edge of the last one reddish. Wings in the type are brownish, but one female has almost clear wings; the veins are yellowish red in all, those on the fore border deepest in colour.

Length 26 millim.

Type (female), Angola 73. 66 in British Museum Coll.

Scylaticus rufescens, ♀, sp. n.

One female from Barberton (*P. Rendall*).

Allied to *S. costalis*, Wiedem., but distinguished from it by the orange-red moustache, wholly red antennæ, and the presence of grey spots on the second segment of the abdomen.

Black. Face with white tomentum. The moustache, which extends nearly halfway up the face, consists of bright orange-red hairs. Palpi and proboscis black, with reddish pubescence. Beard reddish. Antennæ red, the first two joints with red hairs. The forehead black with reddish hairs. The hind part of head bordered with orange-red hairs. Collar and thorax black, the latter with the shoulders and posterior margin red, covered with yellowish pubescence. Scutellum red, with some long reddish bristles. Abdomen with the first segment black, the anterior border of the second black, with an oblong grey spot on each side, the space between and behind the spots is red, and the posterior border of the segment consists of a light yellow continuous band; the third, fourth, and fifth segments are orange-red, bordered with a zigzag black band, and on their lateral margins the light yellow band appears; the sixth and seventh are almost wholly orange-red; the pubescence on the abdomen consists of sparse light reddish hairs, longer and lighter in colour at the sides: on the underside the

yellow bands are continuous on the second, third, and fourth segments. Legs red; the coxæ black with grey tomentum, the hairs and bristles on the legs are whitish yellow. Halteres red. Wings hyaline, on the fore border brown, reaching to the discal cell, but not extending to the base of the wing; the fourth posterior cell is slightly narrowed at the opening.

Length $13\frac{1}{2}$ millin.

Type (female), Barberton (*P. Rendall*).

Damalis speciosa, ♂, Loew, Dipt. Südafrik. p. 108 (1860).

One female from Barberton (*P. Rendall*). Is apparently the female of this species.

The third joint of the antennæ, which was wanting in Loew's type, is black, with the long bristle black, and white towards the tip. The pubescence on the dorsum of the abdomen is sparse, so that the ground-colour is seen, dark reddish with transverse black bands.

Lamyra gulo, Loew, Bemerk. über Fam. Asiliden, p. 19 (Berlin, 1853); id. Dipt. Südafrik. p. 113 (1860).

One male from Lydenburg District (*Zutrzenka*); one male from Waterberg District (*Wilde*); two males from Angola (*Monteiro*).

The above specimens have *three* white bands on the abdomen, the first segment having a rather narrower one than the other two, leaving the anterior border free, but almost reaching the posterior border; it is not visible on the underside. In 'Bemerk. über Fam. Asiliden,' Loew mentions the three bands, but in his 'Dipt. Südafrik.' he only mentions two bands. The third joint of the antennæ is somewhat grey. In every other particular these specimens agree with the description. They vary from 20-32 millim. in length. The two from Angola are both injured and have lost the third joint of antennæ.

Laphria aureopilosa, ♂, sp. n.

One male from Durban (*W. L. D.*).

Blue-black, shining. Face covered with yellowish tomentum, the lower part is occupied by a large black tubercle; below the antennæ are black bristles and hairs, with a few long golden-yellow hairs, which extend down each side of the face. The moustache is composed of black bristles and some light yellowish ones on the lower half. Beard yellowish. Palpi small, black. Antennæ black, the first two

joints with thick black pubescence. Forehead black, with black bristles and hairs. Thorax covered with short dense yellow hairs. Breast-sides have some grey tomentum and black pubescence. Scutellum and abdomen have similar pubescence to that of the thorax; genital organ black, shining, with black pubescence. Underside of abdomen black, with yellow hairs. Legs black; the anterior and middle coxæ covered with grey tomentum; the pubescence on the legs consists of long light yellowish hairs, except on the apex of tibiæ and first joint of tarsi, which are clothed underneath with dense fulvous pubescence, and the last four joints of all the tarsi, which have black pubescence; hind tibiæ much thickened, red at the extreme base, no bristles on the underside. Halteres yellow. Wings dark brown, clear on the basal half, veins dark brown.

Length 13 millin.

Type (male), Durban (*W. L. D.*).

Hephistomera nobilis, Loew, Dipt. Südafrik. p. 120 (1860).

Two males and two females from Fort Johnston, Nyasaland (*P. Rendall*); one male from Lydenburg District (*Zutrzenka*).

Laxenecera zonata, Loew, Dipt. Südafrik. p. 123 (1860).

(One female from Pretoria (*W. L. D.*).

Laxenecera albicinta, Loew, Dipt. Südafrik. p. 122 (1860).

One female from Pretoria (*W. L. D.*).

Dasythrix brachyptera, Loew, Bemerk. über. Fam. Asiliden, p. 21 (Berlin, 1853); id. Dipt. Südafrik. p. 126 (1860).

D. brachyptera, ♀, Loew, and *D. stenura*, ♂, Loew (Dipt. Südafrik. p. 125), are probably the male and female of one species, as Loew himself suggests, and Gerstäcker, in Decken's Reisen in Ost-Afrik., concurs; if this is the case, *brachyptera* having priority must be adopted.

One male from Pretoria (*W. L. D.*); two females from Pretoria (*W. L. D.*).

These three specimens from the same place seem to confirm the above supposition, being very similar in general appearance.

Promachus fulvipes, Macq., Dipt. Exot. i. (2) p. 93 (1838); Loew, Dipt. Südafrik. p. 132 (1860).

One male from Pretoria (*W. L. D.*).

Promachus albicinctus, ♂ & ♀, sp. n.

One male and three females from Pretoria (*W. L. D.*).

Allied to *fulvipes*, but easily distinguished from it by the wholly black antennæ.

♂ and ♀. Grey. Face brown, covered with dense yellow tomentum. The moustache consists of yellow bristles, from which there extends up each side of the face a row of long yellow hairs reaching to the antennæ, and ending with a few black bristles and hairs. Palpi black, with long yellow hairs. Beard white. Forehead with black bristles and hairs on the anterior half, the posterior with yellow ones. Antennæ black, the first two joints with yellow pubescence. Hind part of the head in the centre with yellow bristles, at the sides yellow and black intermixed, with long white hairs. Thorax brown, with the central stripe rather lighter; the shoulders, sides, and anterior half covered with dense reddish-brown tomentum, which borders the side-stripes and runs between their several divisions as a narrow line; the pubescence is black on the dorsum, with a fringe of longer white hairs on the fore border, some scattered ones on the sides and on the posterior part. Scutellum brown, with grey tomentum, black bristles, and white hairs. Breast-sides brown, with reddish-brown tomentum and sparsely scattered black and white hairs; the tuft over the halteres is red.

Abdomen grey, with transverse black bands, which take up more than the anterior half of each segment, not reaching the side border, with rounded corners; the pubescence whitish yellow, thicker on the first three segments; the underside grey, with white pubescence; the genital organ shining black. Legs chestnut-red; the coxæ black, with grey tomentum and long white hairs; the anterior and middle femora with a black stripe on the upperside; knees black; the pubescence on the legs is white, and all bristles black. Wings clear, yellowish at the extreme base; veins brown, those on the fore border red.

Length 20 millim.

Types (male), Pretoria (*W. L. D.*); (female), Pretoria (*W. L. D.*)

Promachus bicolor, ♀, sp. n.

One female from Pretoria (*W. L. D.*).

Black. Face red on the lower half, with yellowish tomentum, above black. Moustache extending halfway up the face consists of yellow bristles below and black bristles

above, from it extends on each side of the face to the antennæ a line of short yellow and black bristles. Palpi black, with white hairs. Forehead black, with black hairs on the anterior half, a few white hairs on the vertex. Antennæ black; the pubescence on the first two joints is black above, white below. Beard white. Hind part of head clothed with black bristles. Thorax black, the shoulders and posterior corners bright red; some fulvous tomentum on the shoulders and sides of thorax; pubescence black, white hairs on the sides and posterior part. Scutellum black, with black bristles and white hairs. Breast-sides black, with stripes of grey tomentum and some sparse white hairs, those over the halteres fulvous. Abdomen iron-grey, with black bands on the segments nearly reaching to the posterior border, not attaining the sides, with rounded corners; the pubescence on the bands is black, with a fringe of longer white hairs on the posterior borders of each segment, and some grey tomentum on the sides of abdomen; viewed from above the abdomen appears black, with narrow bands of white hairs; the underside is black, with white pubescence. Legs red; coxæ, knees, apex of tibiæ, and tarsi black; a faint indication of a black stripe on the underside of the anterior and middle femora; pubescence on the legs white, longest on the anterior coxæ; all bristles black. Wings clear; veins brown, those on the fore border and at base red. Halteres red.

Length 22 millim.

Type (female), Pretoria (*W. L. D.*).

Alimus rubiginosus, Gerst., Decken's Reisen in Ost-Afrik. p. 387 (1873), tab. xvi. fig. 5.

Two females from Zomba, British Central Africa (*P. Rendall*); two females from Uganda (*Ansonge*); two males from Zomba, British Central Africa (*P. Rendall*).

Gerstäcker described the female. In the above specimens the thorax varies from dark red-brown with black stripes to fawn-colour with the central stripes a little darker and only the side-stripes black; the former and Gerstäcker's type have probably become denuded of tomentum, leaving the ground-colour (reddish brown) prominent. The only other differences between these females and the description of the type are the following:—The pubescence on the anterior part of the scutellum is white; the last segment of the abdomen is black, shining. The fore femora have black bristles on the underside, with a few white ones intermixed and have no fringe of long white hairs; there are white bristles on the tarsi of

the two anterior pairs of legs, besides the one at the tip of the tibiæ.

In the two male specimens there are no bristles on the fore femora, but a few long yellowish hairs, there are some black bristles on the side of abdomen, the male organ is blackish with short white pubescence, and the anal appendage bright red.

Alcimus longurio, Loew, Dipt. Südafrik. p. 137 (1860).

Two females from Durban (*W. L. D.*) are evidently the female of the above. Loew described the male only. They differ from his description thus:—

The thorax in one of the specimens has the median black stripes very narrow, posteriorly merged in one broad black stripe; in the other it is divided by only a narrow umber-brown line. The fore tibiæ and the apical half of the posterior ones, and the first joint of the fore and posterior tarsi, clothed with short fulvous pubescence on the inner side; the basal half of the tarsal joints is dark red. The moustache extends to the antennæ, with a few black bristles intermixed with some long yellow hairs. The last segment of abdomen is wholly black, shining.

Alcimus tristrigatus, ♂, Loew, Dipt. Südafrik. p. 134, tab. i. fig. 51 (1860).

One male from Pretoria (*W. L. D.*).

The third joint of antennæ, which was wanting in the type, is black, and the bristle the same.

Two females from Pretoria (*W. L. D.*).

Though these vary somewhat from the male, I feel convinced they are the same species, their general appearance being identical. They differ from the description of the male in the following particulars:—

Antennæ wholly black, the moustache continued to the antennæ as a few scattered white hairs; cheeks black; palpi black, with yellow hairs. The middle stripe of thorax is darker, the two narrow black lines on the side-stripes of the male here become respectively a triangular and an oblong spot; the bristles on the posterior half are black instead of yellow; the hairs on the scutellum are all yellow. On the abdomen the dark spots become a broad band on each segment, not reaching to the posterior margin; the last segment is wholly black, shining; the pubescence on the bands is yellowish, giving them a fulvous appearance, elsewhere whitish. Legs black, the tibiæ on basal half reddish; the

pubescence white, becoming fulvous on the basal inner edge of fore tibiæ and of the first joint of fore tarsi and on the inner and under side of the posterior tibiæ and of the first joint of tarsi.

Wings with grey shading at the apex, extending to the first posterior cell, and continuing in a narrow line to the base of the first submarginal cell.

Alcimus cinerascens, ♂ & ♀, sp. n.

Three males and four females from Fort Johnston, Nyasaland (*P. Rendall*).

♂.—Grey. Face brown, with whitish tomentum; palpi black, with white hairs; the moustache consists of a row of black bristles above the mouth, then of long white hairs, which from halfway up the face dwindle into a few short ones reaching to the antennæ. Forehead with a few black hairs at the sides. Antennæ red; the third joint black, with grey tomentum, the bristle black; the first two joints with black hairs. The hinder part of head bordered with black bristles intermixed with white ones, the hairs on sides of head and the beard white. Thorax and scutellum brown, with grey tomentum; the median stripe of the former blackish brown, divided on its whole length by a narrow brown stripe; the side-stripes brown, with an ill-defined black oblong spot on the last three divisions; the shoulders reddish; the bristles on the posterior part of thorax are black, the pubescence on the scutellum white; the breast-sides are brown, with grey tomentum and scanty white pubescence; the bristles near the halteres white.

Abdomen reddish brown, with darker bands on the segments, bordered posteriorly by narrow bands of white tomentum, and a stripe of white tomentum on each side; the pubescence on the dark bands is black, elsewhere white; the bristles on the sides of the first four segments are white, on the remaining ones black; the underside cinereous, with grey tomentum.

Legs red, the fore coxæ with grey tomentum and long white hairs; the posterior coxæ partly black, with black bristles on the outer edges; the inner side of the femora and of the anterior and middle tibiæ, the posterior tibiæ except at the extreme base, and all the tarsi black; the pubescence on the legs white; the fore femora on the basal half and the fore tibiæ with long white hairs on the underside; the posterior tibiæ and the first joint of the posterior tarsi clothed with dense fulvous pubescence on the underside; bristles on the legs black, with some white ones intermixed.

Wings clear, a grey shadow in the extreme apex extending to the third longitudinal vein; the veins brown.

Length 18 millim.

Type (male), Fort Johnston, Nyasaland (*P. Rendall*).

♀.—The black bristles of the moustache are only at the sides of the mouth, those on the back of the head are mostly white. The last segment of the abdomen is wholly black, shining; the bristles on the side of abdomen are wanting, those on the posterior coxæ and the greater number on the legs are white.

Length 22 millim.

Type (female), Fort Johnston, Nyasaland (*P. Rendall*).

Ommatius fuscovittatus, ♂, sp. n.

One male from Pretoria (*W. L. D.*).

In general appearance this resembles *O. jaculator*, Walker, but is distinguished by the first two joints of the antennæ being red.

Brownish grey. Face clothed with silvery-white tomentum; moustache composed of white hairs, with two black bristles on each side; a few white hairs on the middle of the face, reaching to the antennæ. Palpi black, with white hairs. Beard white. Antennæ red, the last joint and the bristle black; the hairs on the first two joints are black. Forehead grey, with yellowish tomentum, the hairs on the vertex and at the sides black. The hind part of the head with a row of black bristles. Thorax covered with silvery-grey tomentum; the stripes very distinct, brown; the median stripe appears widened at its anterior border and is divided in the centre by a greyish line; the short pubescence and the bristles black. Scutellum brown, with two black bristles. Breast-sides covered with silvery-grey tomentum, slightly fulvous in the centre; the scattered hairs are white.

Abdomen brown, with cinereous segmentations; the pubescence white, the small bristles on the sides of the last segments black; the genital organ shining black, the underside brown. Legs light yellow; the coxæ the same colour as the breast-sides, with white pubescence; the knees, the apex of the first four tarsal joints, and the fifth joint black; the fore and middle femora with white hairs on the underside, the middle and posterior femora armed with short black bristles; the short pubescence on the legs is black; the bristles on the outer edge of the anterior tarsi and on the first joint of the middle tarsi are white, elsewhere black.

Wings clear, veins brown; yellowish at the base and the whole of the first longitudinal vein.

Length $10\frac{1}{2}$ millim.

Type (male), Pretoria (*W. L. D.*).

Lophonotus albofasciatus, ♂, sp. n.

Two males from Pretoria (*W. L. D.*).

Belongs to division I. 2. a of Loew. The abdomen with bristles before the segmentations, the underside with bristles, the thorax with long hairs or bristles reaching to the anterior border.

Brown. Face pale yellow; moustache black, reaching to the antennæ, a few white hairs on the upper half. Forehead brown anteriorly, fawn-coloured posteriorly, with black bristles and a few white hairs near the antennæ. Beard white. Antennæ black. Palpi black, with black hairs. Hind part of head bordered with black bristles, then white hairs. Thorax bronze-coloured, with some white tomentum on the sides, stripes indistinct; the mane composed for two thirds of its length of short black hairs, the last third of longer white hairs, on its whole length bordered by black bristles, thicker at each end; some short white hairs are scattered on the sides and posterior border. Scutellum the same colour as the thorax, clothed with long white hairs and a double row of long black bristles. Abdomen with a black central stripe and irregular black spots, and reddish-brown tomentum on the sides; the pubescence on the first segment consists of long white hairs in the centre and black ones at the sides; elsewhere the pubescence is black, except at the sides of the apical half, where are some white hairs; the bristles are black; the genital organ brown above, red below, with black and white pubescence, longer on the underside; the underside of abdomen brown, with some greyish tomentum.

Legs black, metallic, the basal half of the tibiæ chestnut-brown; the bristles black, with the exception of some on the apex of the tibiæ and on the first three joints of the tarsi, which are white; the pubescence of legs white, thickest on the tibiæ and tarsi. Halteres brown.

Wings clear; veins brown, red on the fore border.

Length $15\frac{1}{2}$ millim.

Type (male), Pretoria (*W. L. D.*).

One specimen is labelled "Caught while attacking common Geometer, Sept. 1895."